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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/711,982	10/18/2004	Juergen Pille	DE920030003US1	5981

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EXAMINER	
LE, THONG QUOC	

ART UNIT	PAPER NUMBER
2827	

DATE MAILED: 06/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/711,982	PILLE ET AL.	
	Examiner	Art Unit	
	Thong Q. Le	2827	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 April 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7 and 9-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *9-12* is/are allowed.

6)☒ Claim(s) *1-7* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Amendment filed on 04/01/2006 has been entered.

2. Claims 1-7,9-12 are presented for examination.

Response to Arguments

3. Applicant's arguments with respect to claims 1-7,9-12 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Pang et al. (U.S. Patent No. 6,373,779).

Regarding claim 1, Pang et al. disclose a method for accessing memory cells (Figure 3) within a memory array operated with a precharge mechanism, in which differential read and write access operations are performed by activating a true bitline and a complement bitline (Figure 5, Column 5, lines 30-67, column 6, lines 1-4), the method comprising:

determining whether a next memory access operation (Column 6, lines 43-45) occurring subsequent to a current access operation is a read access operation or a write access operation (Column 5, lines 38-46, current access is a read access); and

performing a precharge of the true and complement bitlines only when a read access operation follows the current access operation (Column 5, lines 30-38, lines 60-67, Column 6, lines 17-25).

Regarding claim 2, Pang et al. disclose wherein the memory array comprises a SRAM array (Column 2, lines 50).

Regarding claim 3, Pang et al. disclose in which a first precharge control signal is combined with read cycle (n+1) control signal evaluate whether a next memory access cycle comprises a read access or write access (Column 6, lines 6, lines 38-50).

Regarding claim 4, Pang et al. disclose wherein the first precharge control signal and read cycle n+1 control signal are combined to yield a second precharge signal (Column 7, lines 13-35).

Regarding claim 5, Pang et al. disclose wherein the read cycle (n+1) control signal is assert according to an operating mode of the memory array, such that a write access operation occurring over a plurality of system clock cycles results in a continuous assertion of the next read cycle (n+1) control signal until the write access operation is complete (Column 6, lines 38-50).

Regarding claim 6, Pang et al. disclose wherein the read cycle (n+1) control signal is asserted two system clock cycles in advance of a next access operation during a delay between when an address of the memory array is specified and a current access operation is completed (Column 6, lines 5-50).

Regarding claim 7, Pang et al. disclose wherein the next read cycle (n+1) control signal is assert after a delay of one clock cycle during a period of time when no memory operation is performed (Column 6, lines 27-50).

Allowable Subject Matter

6. Claims 9-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 9-12 include allowable subject matter since the prior art made of record and considered pertinent to the applicant's disclosure does not teach or suggest the claimed limitations. Pang et al. (U.S. Patent No. 6,373,779), and others, does not teach the claimed invention having a an integrated circuit memory array adapted for low operation including a logic AND gate or a multiplexer adapted to evaluate the first precharge control signal and read cycle control (n+1) signal the logic AND gate asserting a second precharge control signal when a next memory access is a read access operation for controlling the precharge circuit.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thong Q. Le whose telephone number is 571-272-1783. The examiner can normally be reached on 8:00am-5:00pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarabian Amir can be reached on 571-272-1852. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Thong Q. Le
Primary Examiner
Art Unit 2827

6/16/2006